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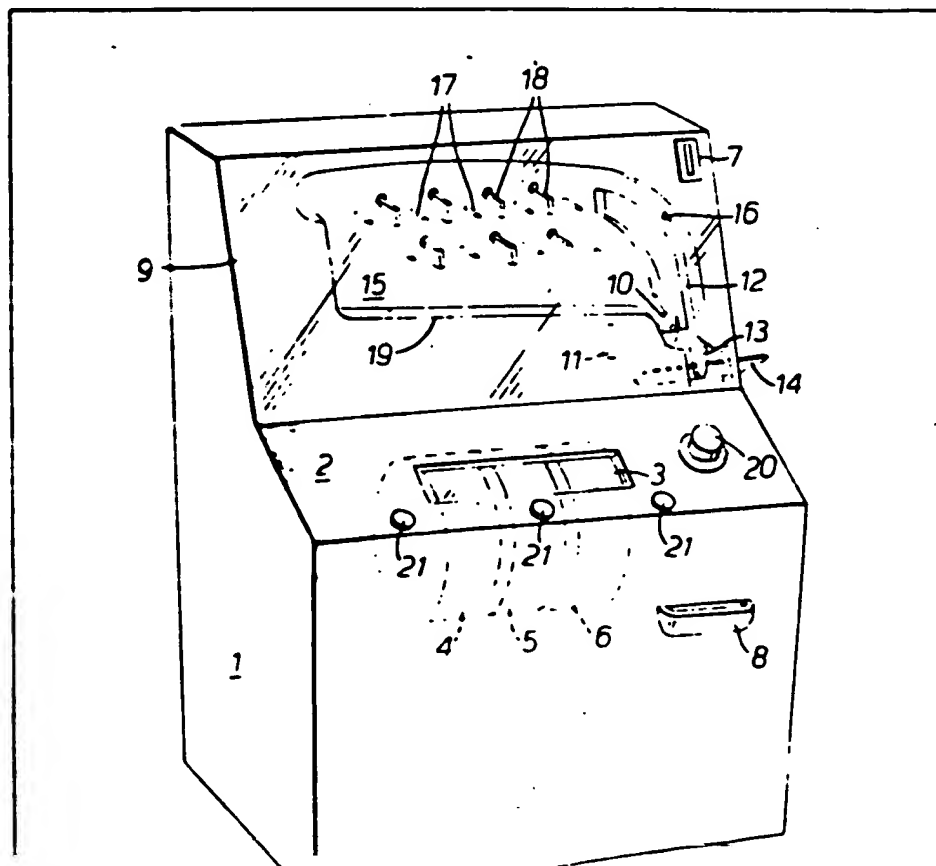
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(54) Fruit machine

(57) A "fruit" machine is provided with an additional game playing apparatus involving a game of skill, the operation of the "fruit" machine being controlled or influenced by the course or outcome of the game. The game may be in the form of a bagatelle using a ball 10 or a token or coin which is arranged to strike one or more obstacles 17 when it is launched over a course, one or more of the obstacles being associated with switch means 18 which when operated influence or control one or more functions of the "fruit" machine.

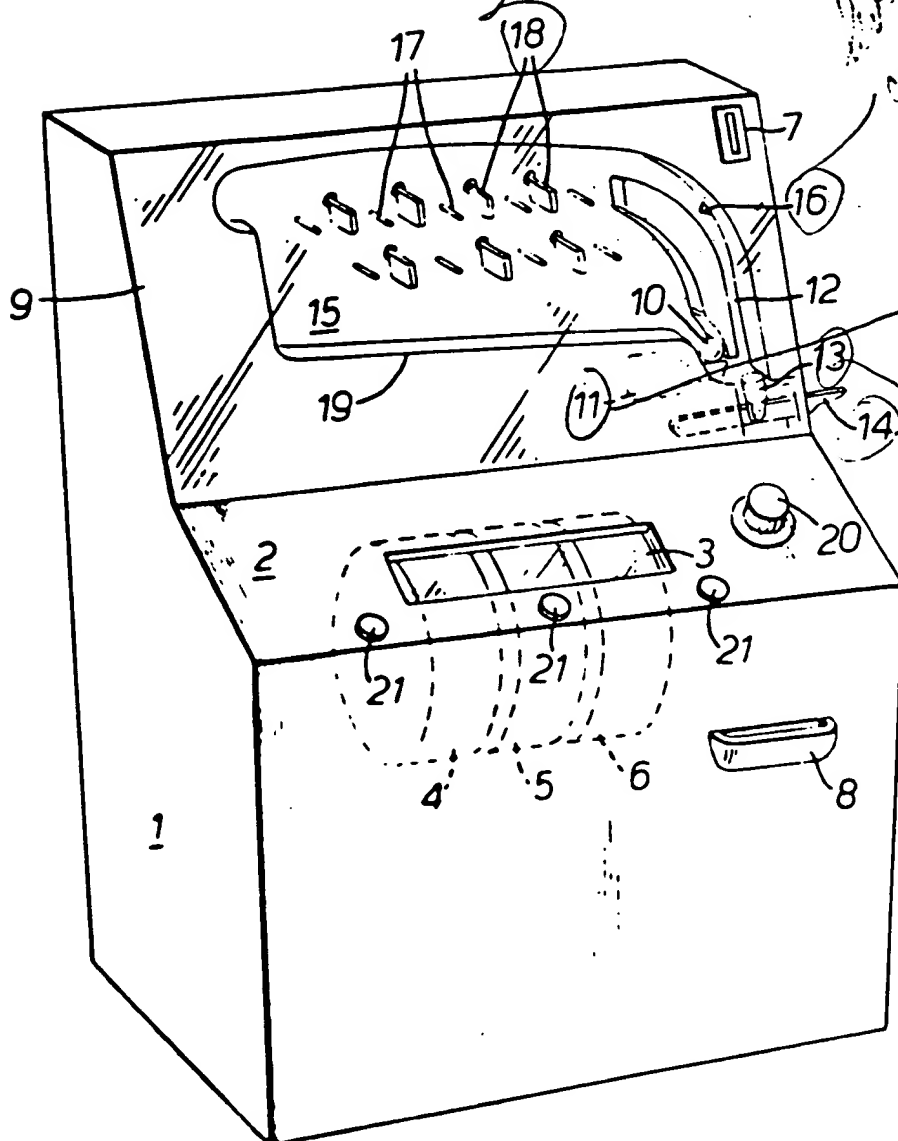
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SPECIFICATION

Fruit machine

- 5 This invention relates to "fruit" machines, that is to say machines in which, on acceptance by the machine of a coin or token, a number of symbol-exhibiting devices is prepared for a sequence of symbols, one from each device, to appear in a window, the symbol sequence of each device being arrested in a more or less random manner, and which secure an advantage to the player when a pre-determined combination of symbols is caused thus to be present in the window. the advantage may consist of some kind of prize, for example money or tokens may be paid out by the machine, or it may consist of an opportunity to play again without payment.
- 20 The operation of such a machine may be mainly mechanical and in machines currently available it is usual for various controls to be applied to the movement of symbols past the window and/or to the arresting of such sequence. Such a control may be of the kind known as a "variator" which has the effect of changing the odds against a winning line of symbols appearing in the window when the machine stops. Other controls may be in the form of holds applied to some of the devices which appear to the player to exhibit a symbol or combination of symbols which would be worth while retaining in the hope of a complementary symbol or symbols appearing in the other positions when the machine stops

- 35 According to the invention a fruit machine is provided with additional game playing apparatus, the operation of the fruit machine being controlled or influenced by the course or outcome of the game. In a particular form of the invention the additional game playing apparatus is in the form of a bagatelle in which a projectile is released for play on acceptance by the machine of a coin or token inserted by the player. The projectile may be launched automatically either simultaneously with acceptance by the machine of the coin or token, or it may be launched manually by the player by the usual spring-loaded plunger. In the latter case the player may be able to determine by the skill he exercises in operating the plunger, which functions of the machine are controlled, and thus influence the outcome of the operation of the machine
- 55 The influence that the additional game playing apparatus has on the functioning of the machine may take various forms. For example, in the case of a "jack-pot", payment may be made solely as a result of the projectile striking a particular obstruction, or it may be as a result of a particular combination of symbols in conjunction with a particular ob-
- 60

not others.

- The sensing means associated with the obstructions, in the case where the additional game playing apparatus is in the form of a "bagatelle", may consist of electric contacts or microswitches, but other presence detectors or impact or vibration sensors may be used.

- In order to explain the operation of the invention, a simple form thereof will now be described with reference to the accompanying drawing which shows:-

A perspective view of a combined fruit machine and game playing apparatus.

- In the drawing a fruit machine comprises a casing 1 having a sloping display panel 2 with a window 3 behind which are arranged for rotation three drums 4, 5 and 6, each carrying around its circumference a series of symbols such as an apple, an orange, a banana etc. A coin slot 7 is associated with conventional internal means (not shown) for accepting or rejecting a coin or token according to whether the coin or token is genuine. On acceptance, the drums 4, 5 and 6 can have rotary motion imparted to them either manually or electrically. Rotation of the drums is arrested by further conventional means (not shown) which stops each of the drums so that one of its symbols appears in the window 3.
- 95 The machine is arranged to "pay out" a prize in the form of money or tokens delivered into a coin chute 8 when certain combinations of three symbols appear, when the machine stops, in the window 3.
- 100 Arranged on a further sloping face 9 of the machine, and taking the place of, or forming part of, the usual "flash", is a game playing apparatus in the form of a game of "bagatelle". In this, a projectile 10 in the form of a metal ball is released by withdrawal of the solenoid 11 on acceptance by the machine of a coin inserted into the slot 7, and rolls to the bottom of a vertical chute 12 which has a firing plunger 13 operated by a spring-loaded lever 14. The player depresses and then releases the lever 14 so that the plunger 13 propels the ball 10 up the chute 12 into the play area 15. In passing along the chute 12 the ball may move a lever 16 which closes a pair of contacts (not shown) that control a circuit which imparts motion to the drums 4, 5 and 6. When the ball 10 enters the play area 15 it descends through a number of obstacles, in this case indicated by pins 17.
- 120 Associated with some or all of the pins 17 are levers 18, so arranged that if the ball strikes one of the pins 17 it is forced to move the adjacent lever 18 which then closes a pair of contacts (not shown). The ball 10 finally arrives at a sloping track 19 down which it runs to its initial position.
- 125

The contacts that are closed by the levers

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5 cised by the player. One of the may, for
 example, condition a "nudge" circuit, so that
 the player can, if he then wishes, operate the
 "nudge" circuit by a manually operable
 15 switch 20. Another of them may be used to
 determine whether the machine will pay out a
 "jack-pot", either directly or upon a subse-
 quent appearance in the window 3 of a pre-
 determined combination of symbols

10 Hold buttons 21 may be provided, and
 these may operate in the usual way, or may
 be operable only after certain of the levers 18
 in the play area 15 have been struck by the
 ball 10.

15 If desired, the operation of the drums 4, 5,
 and 6 may, instead of preceding the arrival of
 the ball 10 in the play area 15, take place
 only after the ball has traversed the play area,
 and in that event it may be conditioned by the
 20 ball striking the sloping track 19. As with
 current machines, a number of playing opera-
 tions may be purchased with a single coin or
 token, and this can be arranged by inhibiting
 the return of the solenoid 11 for the required
 25 number of times

The average time taken for the ball to
 traverse the play area 15 is a function of the
 number, arrangement and type of obstacles,
 but preferably is kept quite small by arranging
 30 the angle of the play area to be near the
 vertical. This fortunately corresponds to the
 shape of cabinet currently employed for fruit
 machines, where the play area can occupy the
 space usually taken by what is known as the
 35 "flash".

Although the invention has been described
 in relation to a play area where some physical
 correlation exists between a projectile and
 various obstacles, it will be appreciated that
 40 this may if desired be simulated on a cathode
 ray tube or other display when either the
 projectile or the obstacles may be controlled
 by the player, and the other fixed or moved
 over a fixed course, or moved automatically in
 45 a random manner. Suitable signals for influ-
 encing or controlling the machine may be
 extracted by suitable electronic circuitry for
 example by counting circuits which relate two
 events by their distance along two co-ordi-
 50 nates

The machine is thus capable within the
 scope of the invention of a very large number
 of possible variations but in essence it always
 involves the influencing of a machine of the
 55 general fruit machine type by the course or
 outcome of an additional game playing appa-
 ratus

CLAIMS

60 1. The combination of a fruit machine as
 herein defined, with a game playing appa-
 ratus, wherein the operation of the fruit ma-

wherein the game is of the general type
 known as bagatelle.

3. The combination according to claim 2,
 wherein a ball is used as a projectile under
 70 the control of the player and pursues a course
 determined at least in part by various ob-
 stacles.

4. The combination according to claim 3,
 wherein the obstacles or some of them have
 75 associated sensing means for determining the
 presence of the projectile and for feeding a
 corresponding signal to the machine.

5. The combination according to claim 4,
 wherein the sensing means are in the form of
 80 levers that operate electric contacts.

CLAIMS (19 Dec. 1980)

1. The combination of a fruit machine as
 herein defined, with a game-playing apparatus
 85 involving a game of skill, wherein the course
 or outcome of the game of skill is used to
 control or influence the operation of the fruit
 machine.

2. The combination according to claim 1,
 90 wherein the game of skill is of the general
 type known as bagatelle.

4. The combination according to claim 3,
 wherein the obstacles or some of them have
 associated sensing means for determining the
 95 presence or passage of the projectile and for
 feeding a corresponding signal to the fruit
 machine.

6. The combination according to any one
 of the preceding claims, wherein a signal
 100 derived from the game-playing apparatus is
 used to make available on the fruit machine
 an additional facility such as "nudge", or a
 "hold" or the adjustment of a variator.

7. The combination according to any one
 of the preceding claims, wherein the arrange-
 105 ment of the game-playing apparatus is such
 that a special signal resulting from the exer-
 cise by the player of special skill can be used
 to cause the pay-out of a prize directly, with-
 110 out further operation of the fruit machine.

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